

**UMP**

5mmL, Bi-Polarized



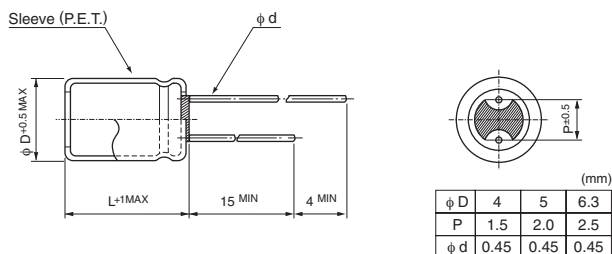
- Bi-polarized series with 5mm height.
- Compliant to the RoHS directive (2011/65/EU).



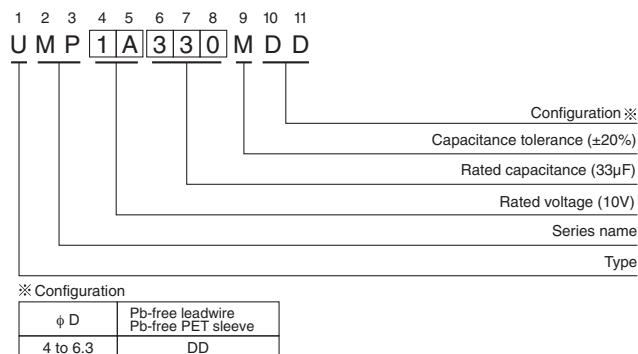
## Specifications

Item	Performance Characteristics							
Category Temperature Range	-40 to +85°C							
Rated Voltage Range	6.3 to 50V							
Rated Capacitance Range	0.1 to 47μF							
Rated Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.05CV or 10 (μA), whichever is greater.							
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C							
	Rated voltage (V)	6.3	10	16	25	35	50	
	tan δ (MAX.)	0.24	0.20	0.17	0.17	0.15	0.15	
Stability at Low Temperature	Measurement frequency : 120Hz							
	Rated voltage (V)		6.3	10	16	25	35	50
	Impedance ratio	Z-25°C / Z+20°C	4	3	2	2	2	2
	ZT / Z20 (MAX.)	Z-40°C / Z+20°C	8	6	4	4	3	3
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C with the polarity inverted every 250 hours.				Capacitance change		Within ±20% of the initial capacitance value	
					tan δ		200% or less than the initial specified value	
					Leakage current		Less than or equal to the initial specified value	
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.							
Marking	Printed with white color letter on black sleeve.							

## Radial Lead Type



## Type numbering system (Example : 10V 33μF)



## Dimensions

V	6.3	10	16	25	35	50		
Cap. (μF)	0J	1A	1C	1E	1V	1H		
0.1	0R1						4 × 5	1.0
0.22	R22						4 × 5	2.0
0.33	R33						4 × 5	2.8
0.47	R47						4 × 5	4.0
1	010						4 × 5	8.4
2.2	2R2				4 × 5	8.4	5 × 5	13
3.3	3R3			5 × 5	12	5 × 5	16	17
4.7	4R7			5 × 5	16	5 × 5	18	20
10	100	4 × 5	17	5 × 5	23	6.3 × 5	27	29
22	220	5 × 5	28	6.3 × 5	33	6.3 × 5	37	
33	330	6.3 × 5	37	6.3 × 5	41	6.3 × 5	49	
47	470	6.3 × 5	45					

Rated ripple current (mA rms) at 85°C 120Hz

## Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

Please refer to page 20, 21, 22 about the formed or taped product spec.  
 Please refer to page 4 for the minimum order quantity.